ABSTRACT

A touch system includes a reference frame, and at least two cameras having fields of view that overlap within the reference frame. The position of an object relative to the reference frame is determined from captured images of the object based on triangulation. The fields of view of the at least two cameras are rotated with respect to the coordinate system of the reference frame to define offset angles. The touch system is calibrated by:

capturing an image of the object using each the at least two cameras at at least one location within the reference frame; and

for each location:

determining the position of the object within each image, the position of the object within each image being represented by an angle ϕ, the angle being equal to the angle formed between an extremity of the field of view extending beyond the reference frame and a line extending from the camera that intersects the object within the image; and

mathematically calculating the offset angles of the at least two cameras based on the angle determined for each image and the position of the at least two cameras relative to the coordinate system assigned to the reference frame.